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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,644	12/28/2001	Gordon Haggott Beckhart	MCT-0103	4114

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Clarence A Green
Perman & Green
425 Post Road
Fairfield, CT 06824

EXAMINER

NOVOSAD, JENNIFER ELEANORE

ART UNIT	PAPER NUMBER
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3634

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,644

Applicant(s)

BECKHART ET AL.

Examiner

Jennifer E. Novosad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

At the outset, it is noted that the examiner of record in this application has changed. Please direct all future correspondences, concerning this application, to Examiner Jennifer E. Novosad, Art Unit 3634.

This non-final Office action is in response to the amendment filed September 10, 2004 by which claims 1, 10, 11, and 14 were amended.

Drawings

The drawings filed on November 5, 2003 stand objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "an exterior partial S-shaped cutout" as in claim 7, must be shown or the features canceled from the claims. Correction is required. No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page

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header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

It is noted that applicant has failed to address, argue, or discuss this objection (see pages 9 and 10 of applicant's arguments).

Specification

The amendment filed September 10, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "project laterally from peripheral edges of plates 22, 24", as at the bottom of page 2 of the specification. In view of the original specification, claims, and especially the drawings, it can be seen that the springs 38 do not project "laterally from" the edges. It appears that the springs 38 project --beyond-- the edges of the plates. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

Claim 5 is objected to because in line 4, it appears that "plates" should be changed to --plate--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the *first* paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 10, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims do not contain proper support for the functional limitations "for reducing a substrate holder" and "the cassette reducer effects a reduction in the substrate holder enabling the holder to hold another substrate smaller than the predetermined size" as in line 2 and the last 3 lines of claim 1. Note line 24 on page 4 of the specification which states "the cassette reducer 20 fits inside the FOUP of figure 1". Nowhere in the original disclosure is it stated that another substrate can be or is held in the cassette reducer, let alone does the original disclosure state that such a substrate is smaller. It is also noted that the drawings fail to show the cassette reducer fitted in the FOUP.

Further, the claims do not contain proper support for the limitation "projecting outward laterally from a peripheral edge" in the last 3 lines of claim 10 and "projecting outward from an outer" in claim 14. *In particular*, in view of the original specification, claims, and especially the drawings, it can be seen that the springs 38 do not project "laterally from" the edges. It appears that the springs 38 project --beyond-- the edges of the plates.

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Finally, the claims lack proper support for the limitation "resiliently flexible" in claim 10 (see line 10). The original disclosure, including the specification and claims, do not use the term "resiliently". Note page 3, line 18 which states "flexible disks" and line 22 which states that the springs are "deformable".

The following is a quotation of the *second* paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, 9, 11, 12, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of the recitations "for reducing a substrate holder" and "effects a reduction in the substrate holder" in claim 1 (see lines 2 and 13, respectively) renders the claim indefinite. *In particular*, in view of the specification, it is unclear how the holder is "reduced", i.e., size, shape, volume, etc. As noted above, the specification does not contain adequate support for these recitations.

Claim 1 is rendered indefinite by the limitation "for mounting the cassette reducer to the substrate holder, wherein when mounted to the holder". *In particular*, applicant first *functionally* sets forth that the reducer is "for mounting" and then improperly attempts to further *positively* link the reducer to the holder by the recitation "wherein when mounted". *Accordingly*, it is unclear whether the claim is *positively* requiring that the reducer is mounted in the holder, e.g., if the claim is only *functionally* reciting that the reducer is mounted in the holder, a reference need not show this feature in order to meet this limitation of the claim, but rather the reference need only *be capable* of showing, performing, etc. this function (i.e., "for mounting").

The recitation of claims 4 and 18 renders the claims indefinite. *In particular*, a unified pod is not an element of the claimed device and it is improper to seek to define claimed structure based on a comparison to some unclaimed element. In this case, the boundaries of the claims cannot be properly ascertained because one would not know whether their device infringed the instant claim until someone else later added a unified pod. *Accordingly*, the features of the device, itself, must be defined instead of relying upon a comparison with an ascertained element.

Claim 9 is rendered indefinite since it is unclear what is meant by "at least two positions", i.e., it is unclear what structure defines "positions".

Claim 11 is rendered indefinite since it is unclear whether the "springs" recited therein are the same as the "resiliently flexible retention member" set forth in claim 10. It is noted that the specification (see page 3, lines 18-22) refers to the spring and retention member as the same element. *Thus*, it is unclear from the language of the claim whether it is applicant's intent to recite "at least one" in claim 10 and then set forth a "plurality" of the same element in claim 11. *Accordingly*, the language utilized in claims 10 and 11 should be consistent.

Claim 12 is rendered indefinite by the recitation "designed to mate". *In particular*, it is unclear how the springs are "designed" to mate with an unclaimed element, i.e., the pod, and thus the metes and bounds of the claim cannot be properly ascertained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

*Insomuch as the claims are best understood (in view of the Section 112, 1st and 2nd paragraph rejections, as advanced above), claims 1-6, 8, 9, 10-13, 14, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,398,032 (Fosnight *et al.* '032) in view of U.S. Patent No. 4,228,902 (Schulte '902).*

Fosnight *et al.* '032 disclose a semiconductor cassette reducer interlock with a unified pod carrier comprising a unified pod carrier (20) houses a semiconductor cassette reducer (22- see Figure 2), the semiconductor cassette reducer comprises a first substantially U-shaped plate (46) having a pair of interior arm cutouts (see Figure 5B), a second substantially U-shaped plate (48) having a pair of arm cutouts, and a plurality of wafer supports, i.e., first and second wafer supports (28), includes a pair of columns (i.e., vertical portion at 28 in Figure 1) and being joined between the first and second substantially U-shaped plates (46 and 48); *with respect to claim 5*, the wafer supports (28) includes a pair, i.e., each support has one panel on each end thereof and thus together there is pair defined adjacent the first plate (46), of side panels (see Figure 1 - horizontal segments connected at each end of 28 or 28 shown in Figure 2) connected to a pair of arms (see Figure 5B - top view of plate 46) of the first plate (46); *with respect to claim 6*, the side panels have a plurality of lips (30); at least two latching mechanisms (42, 50 - see Figure 7) which engage the unified pod carrier in order to prevent any significant side-to-side movement of the semiconductor cassette reducer in the unified pod carrier whereby the latching mechanism of Fosnight *et al.* '032 is not a spring, as in claim 1 or a resiliently flexible member as in claim 10; *with respect to claim 10*, the first pair of arms (see Figure 5B0 of the first plate (46) each has a

first arm cutout, and the second plate (48) can have similar structure (see column 9, lines 62-64), i.e., a pair of arms each having a cutout.

The claims differ from Fosnight *et al.* '032 in requiring more than two retention springs (claims 1, 11, and 12), i.e., flexible retention members (claim 10). It is noted that the recitation "designed to mate..." in claim 12 is a functional recitation not being positively required by the claim and thus the reference need not show this limitation but rather the reference need only be *capable* of being used with such a structure referenced in the claim.

Schulte teaches a spring loaded (41) latching mechanism (23) that locks the semiconductor cassette with the carrier (see Figures 1-4).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the latching mechanism of Fosnight *et al.* '032 to be a spring loaded latching mechanism in order to control the length of the latching mechanism to extend through and attach to the carrier and prevent the cassette from falling out of the carrier (see column 3, lines 13-16 and 54-55).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fosnight *et al.* '032 in view of Schulte '902 as applied to claims 1-6, 8, 9, 10-13, 14, 15, 17, and 18 above, and further in view of U.S. Patent No. 5,950,843 (Ohori '843).

Ohori teaches a top plate (A) of a semiconductor cassette reducer has an exterior partial S-shaped cutout located adjacent to the side panel (C1 - see Figure 7).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the top plate of Fosnight *et al.* '032 with the provision of an exterior partial S-shaped cutout, as taught by Ohori '843, for an aesthetic purpose or to reduce the

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weight of the semiconductor cassette, thus producing no new matter or unexpected results to the device.

Allowable Subject Matter

As previously indicated, claim 16 is allowed.

Response to Arguments

Applicant's arguments filed September 10, 2004 have been fully considered but they are not persuasive.

Firstly, with respect to applicant's arguments (on page 10, see lines 17-20) that "there is a structural difference between a cassette (such as cassette 22 in Fosnight) and a cassette reducer for reducing a substrate holder as called for in claim 1" and that "the structural differences ... are those structural features (such as for example retention members that allow snap in/snap out mounting, and supports accommodating smaller size substrates)", it is noted that the claims do not recite these structural differences listed by applicant. *Thus*, these arguments are considered to be more limiting than what is actually being claimed and therefore are not commensurate with the scope of the claim.

Next, applicant's arguments (see lines 24-28 of page 10) that "those structural features that allows the cassette reducer to be removably mounted to a substrate holder or pod that is capable of holding or otherwise incorporates a substrate cassette to reduce the substrate holder enabling it to hold smaller substrates than the holder is otherwise capable of carrying", are acknowledged. Note also page 11 of applicant's arguments. *First of all*, it is noted that this

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argument/statement is grammatically incorrect, making it difficult for the examiner to correctly ascertain applicant's point. *Nonetheless*, similar to the Section 112, 1st paragraph rejections advanced above, these arguments do not contain proper support in the specification (or claims for that matter) for the recitations (a) "removably" mounted, (b) "reduce the substrate holder", and (c) holding "smaller" substrates. *Accordingly*, these arguments are considered to be more limiting than what is actually being claimed and therefore are also not commensurate with the scope of the claim.

Further, regarding applicant's arguments (at the top of page 11) that "the bare disclosure of a removable substrate holding cassette, such as in Fosnight, does not make that cassette into a cassette reducer for reducing a substrate holder", it is noted that a "cassette reducer" is a name chosen by applicant to illustrate his invention. The claims do not attempt to recite structure that would differentiate the "cassette" of Fosnight *et al.* from the "cassette reducer" of applicant. *In fact*, applicant seeks to improperly (as evidenced by the Section 112, 1st paragraph rejections advanced above) attempt to functionally define the "reducer". *Thus*, if a reference is *capable of* performing this function, it meets the claim, i.e., the reference need not explicitly disclose the intended use. *For example*, the examiner has a cup on her desk that she received which had a liquid beverage in it when she obtained it. *However*, now the cup holds pens, pencils, etc. Is the cup still not a cup? The intended use, i.e., using it for holding a beverage or for holding pens, does not differentiate the cup being a cup. *Accordingly*, Fosnight *et al.* are considered to meet the language of the claims, with respect to the *claimed* structure. It is noted that if the structure of Fosnight *et al.* were placed within a larger apparatus, it would reduce the volume of the larger apparatus.

Regarding applicant's discussion (at the top of page 11) of Schulte, it is noted that Schulte has been utilized for the "spring loaded" mechanism, and not for any showing of a "reducer".

Furthermore, with respect to applicant's arguments (see page 12) concerning claim 10 and that "resiliently flexible retention member projecting outward laterally from the peripheral edge", it is noted that in view of the Section 112, 1st and 2nd paragraph rejections advanced above, these arguments are considered to be more limiting than what is disclosed and therefore are not commensurate in scope with the disclosure. *Similarly*, note applicant's arguments (on page 13) concerning claim 14 in view of the Section 112, 1st and 2nd paragraph rejections advanced above.

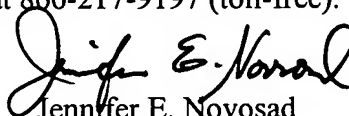
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E. Novosad whose telephone number is (703)-305-2872. The examiner can normally be reached on Monday-Thursday, 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703)-308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Jennifer E. Novosad".

Jennifer E. Novosad
Primary Examiner
Art Unit 3634

Jennifer E. Novosad/jen
December 22, 2004